

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049914 A1

(51) International Patent Classification⁷: **D06P 1/642**,
1/38, 3/24, D06M 13/358, C07D 251/40, 251/48, 251/50,
251/54, C08K 5/3495

(21) International Application Number:
PCT/EP2004/052897

(22) International Filing Date:
10 November 2004 (10.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03104277.3 19 November 2003 (19.11.2003) EP

(71) Applicant (for all designated States except US): **CIBA
SPECIALTY CHEMICALS HOLDING INC.** [CH/CH];
Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **OUZIEL, Philippe**
[FR/FR]; 24, rue des Alpes, F-68130 Altkirch (FR).
STRAHM, Ulrich [CH/CH]; Schartenfluhweg 49,
CH-4147 Aesch (CH).

(74) Common Representative: **CIBA SPECIALTY CHEM-
ICALS HOLDING INC.**; Patent Department, Klybeck-
strasse 141, CH-4057 Basel (CH).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

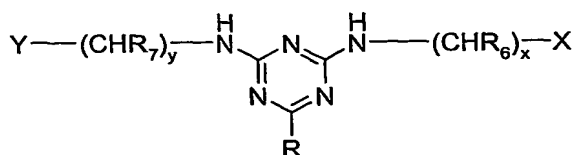
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF INCREASING DEPTH OF SHADE



(1)

(57) Abstract: The invention relates to a method
of increasing the depth of shade of dyed natural or
synthetic polyamide fibre materials, which com-
prises treating the fibre material before, during or
after dyeing with a liquor comprising a compound
of formula (1) wherein R is halogen, C₁-C₁₂alkyl,
C₅-C₂₄aryl, C₆-C₃₆aralkyl, -OR₁ or -NR₁R₂, R₁ and

R₂ being, each independently of the other, hydrogen, C₁-C₁₂alkyl unsubstituted or substituted by one or more hydroxy, amino, mer-
capto, carboxyl, sulfo, C₁-C₁₂alkylsulfonyl, C₅-C₂₄arylsulfonyl or C₆-C₃₆aralkylsulfonyl groups, C₅-C₂₄aryl unsubstituted or substi-
tuted by one or more hydroxy, amino, carboxyl, sulfo, C₁-C₁₂alkylsulfonyl, C₅-C₂₄arylsulfonyl or C₆-C₃₆aralkylsulfonyl groups, or
C₆-C₃₆aralkyl unsubstituted or substituted by one or more hydroxy, amino, carboxyl, sulfo, C₁-C₁₂alkylsulfonyl, C₅-C₂₄arylsulfonyl
or C₆-C₃₆aralkylsulfonyl groups, X and Y are, each independently of the other, mercapto, -NR₃R₄ or -N⁺R₃R₄R₅ A⁻, wherein R₃, R₄
and R₅ are, each independently of the others, hydrogen or C₁-C₁₂alkyl and A⁻ is chloride, bromide, iodide, sulfate or methylsulfate,
R₆ and R₇ are, each independently of the other, hydrogen or C₁-C₁₂alkyl, and x and y are, each independently of the other, a number
from 2 to 12.